

## Product datasheet for **TP720852L**

### Catalase (CAT) (NM\_001752) Human Recombinant Protein

#### Product data:

|                                       |   |
|---------------------------------------|---|
| Product Type:                         | Recombinant Proteins  |
| Description:                          | Purified recombinant protein of Human catalase (CAT)  |
| Species:                              | Human   |
| Expression Host:                      | E. coli   |
| Expression cDNA Clone or AA Sequence: | Ala2-Leu527   |
| Tag:                                  | Tag Free  |
| Predicted MW:                         | 59.7 kDa  |
| Purity:                               | >95% as determined by SDS-PAGE and Coomassie blue staining                                      |
| Buffer:                               | Provided lyophilized from a 0.2 $\mu$ m filtered solution of 20 mM Tris-HCl, 150 mM NaCl        |
| Endotoxin:                            | Endotoxin level is < 0.1 ng/ $\mu$ g of protein (< 1 EU/ $\mu$ g)                               |
| Storage:                              | Store at -80°C.   |
| Stability:                            | Stable for at least 3 months from date of receipt under proper storage and handling conditions. |
| RefSeq:                               | <a href="#">NP_001743</a>   |
| Locus ID:                             | 847   |
| UniProt ID:                           | <a href="#">P04040</a> , <a href="#">A0A384P5Q0</a>   |
| RefSeq Size:                          | 2300  |
| Cytogenetics:                         | 11p13   |
| RefSeq ORF:                           | 1581  |



[View online »](#)

**Summary:**

This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene. [provided by RefSeq, Oct 2009]

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Amyotrophic lateral sclerosis (ALS), Metabolic pathways, Methane metabolism, Tryptophan metabolism